

***Remarks***

Upon entry of the foregoing amendments, claims 1-9 and 11-25 are pending in the application, with claim 1 being the sole independent claim.

Claims 1, 9, and 21-25 are sought to be amended. Claim 10 is sought to be cancelled. Claims 1, 9, and 21-25 are amended solely to place them in a format which better complies with U.S. Patent and Trademark Office rules. These amendments should not be considered an amendment related to patentability. Support for the amendments to claims 1, 9, and 21-25 is found, *inter alia*, in the originally filed claims 1, 9, and 21-25. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendments and the following remarks, Applicants respectfully request that the Examiner reconsider the outstanding objections and rejection, and that they be withdrawn.

### ***Information Disclosure Statement***

The Office indicated that references NPL 4, NPL 9, and NPL 10 have not been considered because there are no dates associated with these references on the previously submitted Information Disclosure Statement ("IDS"). Applicants have rectified these omissions in the concurrently submitted supplemental IDS.

### ***Claim Objections***

The Office objected to claim 1 because claim 1 contains the word 'closed' in quotation marks. The Office also objected to claim 25 because after the period there is a "p". The foregoing amendments to claims 1 and 25 have rendered these objections moot.

### ***Rejection under 35 U.S.C. § 103***

The rejection of claims 1, 2, 5-10, 15, 17, and 19-25, under 35 U.S.C. § 103(a) as being unpatentable over U.S. 2004/0157745 A1 ("Vermeer"), U.S. 2005/0221991 A1<sup>1</sup> ("Wolf"), U.S. 2005/0214336 A1 ("Turberg"), and U.S. 5,925,182 ("Patel"), is respectfully traversed.

Applicants respectfully assert that the Office has not established a *prima facie* case of obviousness. The U.S. Supreme Court has held that "[i]f a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability." *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1740 (2007). Applicants have the

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<sup>1</sup> U.S. 2005/0221991 A1 is an English language equivalent of International Publication No. WO 03/099005, the German language document, which was originally cited by the Office in the foregoing 35 U.S.C. § 103(a) rejection.

burden to submit evidence of non-obviousness only if the Office has established a *prima facie* case of obviousness. *In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984).

The Office has not established that the invention encompassed by 1, 2, 5-10,<sup>2</sup> 15, 17, and 19-25, is a predictable variation of the subject matter described in Vermeer, Wolf Turberg, and Patel, for at least the following reasons.

Neither Vermeer, Turberg, Wolf, nor Patel, individually or taken together, describes a *predictable* variation of the claimed invention. First, Vermeer does not describe or suggest the claimed invention. The Office accurately points out that a notable difference between Vermeer and claimed invention is that Vermeer does not expressly teach the instantly claimed active compound or a method of making, applying or controlling insects with the instant compound. Furthermore, Applicants agree with the Office that another notable difference between Vermeer and claimed invention is that Vermeer describes the use of *open* penetrants in oil-based suspension concentrates instead the use of *closed* penetrants in oil-based suspension concentrates as encompassed by the claimed invention. In fact, Vermeer is silent insofar as use of *closed* penetrants in oil-based suspension concentrates. Claim 1 of the present invention encompasses oil-based suspension concentrates comprising, *inter alia*, at least one alkanol alkoxylate of the formula (I) (see below), with an alkyl-terminal as *closed* penetrants.

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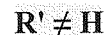
<sup>2</sup> Claim 10 has been cancelled. Therefore, the rejection as it relates to claim 10 is rendered moot.

*Vermeer*



*Open Penetrant with highlighted H-terminal*

*Claim 1*



*Alkanol Alkoxylate of the Formula (I) (a closed penetrant) with highlighted alkyl-terminal*

In contrast, Vermeer describes oil-based suspension concentrates containing *open* penetrants—*i.e.*, alkanol alkoxylates with a H-terminal. (*See e.g.*, Vermeer, pages 3-4, paras. [0068]-[110].) Vermeer does not describe or suggest the use of closed penetrants. A person of ordinary skill in the art would therefore be lead to use open penetrants according to the teaching of Vermeer.

Additionally, Applicants have surprisingly found that closed penetrants display a better biological activity than the corresponding open penetrants. (Application as filed, page 3, lines 5-6.) For example, Applicants showed in Examples I and II of the present application that the use of closed penetrants in the oil-based suspension formulations as encompassed by the claimed invention resulted in improved properties when compared to the use of the H-terminated alkanol alkoxylates, an open penetrant. (*See id.* at pages 34-37, Examples I-II.) Applicants have also shown in Example III of the present application that the use of closed penetrants in the oil-based suspension formulations as encompassed by the claimed invention resulted in improved properties when compared to the use of other classes of penetrants. (*See id.* at pages 37-39, Example III.) As discussed above, Vermeer is silent as to the use, or advantages of using closed penetrants

in oil-based suspension concentrates for pest control on plants. Furthermore, as discussed below, the other cited references do not describe or suggest the use, or advantages of using closed penetrants in oil-based suspension concentrates for pest control on plants. For at least these reasons, a person of skill would not be lead to the claimed invention with any reasonable expectation of success based on the disclosures of Vermeer and the cited references.

Second, Wolf<sup>3</sup> does not cure the deficiencies of Vermeer. The Office asserts that Wolf cures the deficiencies of Vermeer insofar as Wolf discloses the use of closed penetrants. (Office Action, page 10.) Contrary the Office's assertions, given the teachings of the cited references, a person of ordinary skill would not be lead to oil based concentrates with closed penetrants, as encompassed by the claimed invention, with a reasonable expectation of success. Wolf describes *aqueous* formulations comprising micro-encapsulated penetrants instead of the oil-based formulations according to claim 1 of the present invention. (See Wolf, page 1.) One key difference between Wolf and the claimed invention is that formulations described in Wolf require the use of *micro-encapsulated* penetrants while the formulations encompassed by the claimed invention do not.

Additionally, Wolf teaches away from using *non-micro-encapsulated* closed penetrants in oil-based suspension concentrates, as encompassed by the claimed invention. Notably, Wolf indicates that formulations containing non-micro-encapsulated penetrants are often unstable. In particular, Wolf indicates that:

[P]lant treatment compositions which, in addition to the agrochemical active compounds and customary additives, also comprise penetrants in the formulation have already been described. However, *this type of preparation is frequently insufficiently stable for practical applications.*

(See Wolf, page 1, para. [0003].) (emphasis added)

Wolf further highlights that there are a number of advantages to using micro-encapsulated penetrants when compared to using micro-encapsulated penetrants, such as those encompassed by the claimed invention, in agrochemical preparations. Specifically, Wolf states that:

Surprisingly, the microcapsule formulations according to the invention display a markedly better and more rapid bioavailability of the agrochemical active compounds present than corresponding active compound suspensions in which no penetrants are present. Owing to the prior art, it was to be assumed that the penetrants can only be fully active when they are freely available in the formulations. As opposed to what was to be expected, however, even the microencapsulated penetrants are capable of increasing the bioavailability of agrochemical active compounds to the same extent.

(*Id.* at pages 1-2, para. [0041].)

Wolf further states that:

The microcapsule formulations according to the invention are distinguished by a series of advantages. Thus, the product combinations of microencapsulated penetrant and active compound suspension can already be marketed by the producer in ready-to-use form. The laborious preparation of a tank mix immediately prior to application is not required. Another advantageous aspect is that the microcapsule formulations according to the invention are even stable when stored under practice conditions.

(*Id.* at page 2, para. [0042].)

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<sup>3</sup> "Wolf" in this Reply involves a discussion of U.S. 2005/0221991 A1, an English language equivalent of International Publication No. WO 03/099005.

Thus, based on the disclosures of Wolf, a person of ordinary of skill would be motivated to use micro-encapsulated penetrants in aqueous formulation instead of non-micro-encapsulated penetrants in oil-based suspension formulations as encompassed by claimed invention. As such, the Office has not established a sufficient rationale as to why a person of ordinary skill would combine Wolf with Vermeer, Turberg, and Patel to arrive at the claimed invention with a reasonable expectation of success.

Third, Turberg does not cure the deficiencies of Vermeer. The Office asserts that Turberg cures the deficiencies of Vermeer because it teaches the use of phenyl ketoenol derivatives, an agrochemical substance encompassed by the claimed invention, for parasite control. (*See* Office Action, pages 7-10.) Contrary to the Office's assertion, Turberg does not cure the deficiencies of Vermeer because, *inter alia*, Turberg does not teach the use of phenyl ketoenol derivatives for parasite control in plants, as encompassed by the claimed invention. Instead, Turberg is directed to formulations of phenyl ketoenol derivatives for *parasite control on animals*, such as livestock. (*See* Turberg, page 1.) In contrast, the claimed invention is directed to formulations suitable for *the control of insects on plants*. The problem to be solved by the present invention is improving insect control activity while at the same time improving plant tolerance. (*See e.g.*, Application as filed, page 2, line 25-page 3, line 16). Turberg is silent as to whether phenyl ketoenol derivatives can be used for parasite control in plants. Based on the disclosure of Turberg, a person of ordinary skill would be lead to use phenyl ketoenol derivatives for parasite control on animals, *not* in plants. The Office has not established why a person of ordinary skill would use phenyl ketoenol derivatives for parasite control on plants, with a reasonable expectation of success.

In addition, Turberg does not cure the deficiencies of Vermeer because, *inter alia*, Turberg does not teach the use of phenyl ketonol derivatives in oil-based suspension concentrates, as encompassed by the claimed invention. In fact, Turberg does not provide any guidance for the use of phenyl ketonol derivatives in oil-based suspension concentrates with a closed penetrant such one alkanol alkoxylate of the formula (I) as recited in claim 1, or the advantages of using closed penetrants in oil-based suspension concentrates for insect control on plants.

Thus, the Office has not established a sufficient rationale as to why a person of ordinary skill would combine Turberg with Vermeer, Wolf and Patel to arrive at the claimed invention with a reasonable expectation of success.

Finally, Patel does not cure the deficiencies of Vermeer. The Office states that:

Patel et al. teach the equivalence of using mineral oil or vegetable oil as a carrier in liquid suspension compositions (Abstract and claims 1 and 2).

(Office Action, page 10.)

The Office further states that:

The difference between the instant application and Vermeer et al. is that Vermeer et al. do not expressly teach adding mineral oil to the composition or to the methods. This deficiency in Vermeer et al. is cured by the teachings of Patel et al.

(Office Action, page 10.)

Patel does not describe nor suggest adding mineral oil or vegetable oil to oil-based suspension concentrates comprising, *inter alia*, at least one alkanol alkoxylate of the formula (I) (see above), with an alkyl-terminal, as encompassed by the claimed



invention. In fact, Patel is silent as to the use of mineral oil or vegetable oil in oil-based suspension concentrates comprising, *inter alia*, at least one alkanol alkoxylate of the formula (I) with an alkyl-terminal, as encompassed by the claimed invention. Thus, Patel does not cure the deficiencies of Vermeer, Wolf and Turberg. Accordingly, the Office has not established a sufficient rationale as to why a person of ordinary skill would combine Patel with Vermeer, Wolf and Turberg to arrive at the claimed invention.

In summary, the Office has not established that the claimed invention is a *predictable* variation of the disclosures of Vermeer, Turberg, Wolf, or Patel, individually or combined. Accordingly, the Office has not established a *prima facie* case of obviousness.

Claims 2, 5-9, 15, 17, and 19-25, depend directly or indirectly, from claim 1 and therefore include every limitation of claim 1. *See* 35 U.S.C. § 112, fourth paragraph. Thus, the arguments as to non-obvious of the subject matter of claim 1 would also apply for claims 2, 5-9, 15, 17, and 19-25.

Applicants respectfully request that the Office withdraw the foregoing rejection under 35 U.S.C. § 103(a).

***Conclusion***

All of the foregoing grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Office reconsider the presently outstanding objection and rejection, and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Office believes, for any reason, that personal communication will expedite prosecution of this application, the Office is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Keisha Hylton-Rodic, Ph.D.  
Attorney for Applicants  
Registration No. 59,823

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1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600  
1144807\_2.DOC